

LISTING AND AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (previously presented) A surveillance system comprising;
a sensor suite having a plurality of sensors of the type that sense a condition of the
ambient physical environment each sensor having a sensor output signal;

a field sensing unit locally located with and in communication with each sensor to
receive sensor output signals;

the field sensing unit further comprising a sensor fusion module having a CPU
programmed to determine the status of each sensor based on its sensor output signal and through
a programmed algorithm to derive a qualitative determination from the status determinations of
the sensors; and

the field sensing unit further comprising a transmitter for transmitting the qualitative
determination as a narrow bandwidth signal to a remote command center.

Claim 2 (original) The surveillance system of claim 1 further wherein said sensor
suite and said field sensing unit are installed in a unitary structure.

Claim 3 (currently amended) A system for displaying status change indications, of a
plurality of smart sensors positioned at a remote location, said system including a command
console for displaying said indications, said system also including a field sensing unit at said
remote location, said field sensing unit including a ~~field sensing unit including~~ means for
comparing present status indications for said smart sensors with next prior status indications for
said sensors and ~~a programmed algorithm to derive a qualitative determination therefrom for~~
~~computing status change indications~~, said field sensing units including means for transmitting ~~the~~
~~qualitative determination status change indications~~ to said command console.

Claim 4 (previously presented) A system as in claim 3 wherein said field sensing
unit includes means for determining whether or not a said change in status indication institutes
an alarm condition.

Claim 5 (previously presented) A system as in claim 2 wherein said field sensing unit includes assessment means for evaluating status change indications over time for determining a condition statement for transmission.

apparatus including a field sensing unit for monitoring the status of said sensors, said unit including means for computing a change in status indication for each of said sensors under surveillance via sensor fusion, and said field sensing unit using sensor fusion operations based on the change in status indicators of the sensors to compute a qualitative determination of the status of the environment to determine if a defined status of the environment is present.

 said field sensing unit including means for transmitting said change in status indications to a command module via a narrow bandwidth signal if the defined status of the environment is present.

Claim 6 (previously presented) A system as in claim 1 including a plurality of remote location each of which includes a plurality of sensors, each of said remote locations including a field sensing unit, said command center including means for polling said plurality of field sensing units for initiating transmissions therefrom.

Claim 7 (previously presented) A security apparatus including a plurality of sensors responsive to the presence of airborne chemicals and/or biological agents, said apparatus including a field sensing unit for monitoring the status of said sensors, said unit including means for computing a change in status indication for each of said sensors under surveillance via sensor fusion, and said field sensing unit using sensor fusion operations based on the change in status indicators of the sensors to compute a qualitative determination of the status of the environment to determine if a defined status of the environment is present.

 said field sensing unit including means for transmitting said change in status indications to a command module via a narrow bandwidth signal if the defined status of the environment is present.

Claim 8 (deleted) The security apparatus of claim 7 in which the field sensing unit uses sensor fusion operations based on the change in status indicators of the sensors and

computes a signal containing information that indicates the status of the environment under surveillance, and the transmitting means transmits the signal.

Claim 9 (currently amended) A field sensing unit for monitoring the status of a plurality of smart sensors, said unit having a sensor fusion module being operative to compare present status indications with next prior status indications and having a programmed algorithm for computing qualitative change of status indications, said unit including means for transmitting the qualitative change of status indications via a narrow bandwidth signal.

Claim 10 (previously presented) A system comprising a community of individual sensor suites having sensors of the type that sense a condition of the ambient environment, a sensor fusion device, and a command sensor remote from said suites and said sensor fusion device, each of said sensor suites comprising a plurality of sensors each responsive to the presence of its specified sensing input for generating signals representative thereof, said sensor fusion device being operative through a programmed algorithm to derive a qualitative interpretation of the signals from at least one of said sensor suites and for communicating said interpretation to said remote command center via a narrow bandwidth signal.